REMARKS/ARGUMENTS

This Reply is in response to the **final** Office Action dated May 28, 2009.

I.   Introduction

Claims 2-5, 7, 9-13, 16-18 and 32-37 are pending in the application.

Claims 2, 3, 5, 7, 16, 17 and 32 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. US 2004/0249975 to Tuck et al. (hereinafter "the Tuck et al. publication").

Claims 4, 18, and 33-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Tuck et al. publication in view of U.S. Patent No. 6,684,250 to Anderson et al. (hereinafter "the Anderson et al. patent").

Claims 9-13, 36, and 37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Tuck et al. publication in view of the Anderson et al. patent in further view of U.S. Patent Publication No. US 2002/0165835 A1 to Igval (hereinafter "the Igval publication").

As will be discussed below, none of the pending claims are anticipated or rendered obvious by the applied references.

II.   Claims 2-5, 7, 16-18, 32-35, and 37 are Patentable

Claims 2, 3, 5, 7, 16, 17 and 32 stand rejected under 35 U.S.C. 102(e) as being anticipated by the Tuck et al. publication.

Claims 4, 18, and 33-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Tuck et al. publication in view of the Anderson et al. patent.

Claim 37 stands rejected under 35 U.S.C. 103(a) as being unpatentable over the Tuck et al. publication in view of the Anderson et al. patent in further view of the Igval publication.

First, the Tuck et al. publication identifies location by utilizing the "router NIC number", whereas **claim 2** recites "edge router and port information" to perform "a database

lookup operation to retrieve a geographic location stored in association with the edge router and port information".

Second, Claim 2 is patentable because, among other things, it recites the features indicated below:

> *comparing the obtained physical location information to information listing*
> *physical locations authorized to obtain access to a service for which security*
> *is to be provided*

The Examiner states on p. 2 of the Office Action that the Tuck et al. publication discloses "information listing physical locations authorized to obtain access to a service for which security is to be provided ([0013])." However, the cited reference actually reads: "The information may for example relate to the department in which a user of the client node is registered and to their level of authority and security clearance". There is nothing about "physical locations authorized to obtain access" in this reference.

The Examiner then states on p. 5 of the Office Action that:

> "the examiner points to 0017-0019 of Tuck, where Tuck discloses that the
> NIC is used as location information, and when it does not match any address
> in the database (expected locations), a security procedure is initiated."

Actually, [0017] of the Tuck et al. publication states (emphasis added):

> "Further preferably, the router determines whether a client node's **link layer**
> **address** is included in the database, and initiates a security procedure **when**
> **said address** is not in the database".

This is clearly using a "network address", rather than "the obtained physical location information" that is found in claim 2. Further, there is no teaching or suggestion of obtaining the "physical location information" in order to identify "locations authorized to obtain access to a service for which security is to be provided". The Tuck et al. publication approach is **completely different** than claim 2.

Still further, the Examiner points on p. 5 of the Office Action to paragraph [0052] of the Tuck et al. publication. This paragraph refers to "physical network location (e.g. through VLAN ID and incoming router NIC number)". But even if this paragraph were to refer to a "geographic location" as opposed to a "network location", it still would not teach or suggest using "comparing the obtained physical location information to information

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listing physical locations authorized to obtain access to a service for which security is to be provided". Instead, [0052] refers to "router 2 is able to provide intelligent service delivery by making available relevant specific network and application services to selective users based on their user profile". This describes providing enhanced services to users, not "listing physical locations authorized to obtain access to a service for which security is to be provided".

Still further, in paragraph [0018] of the Tuck et al. publication (referred to by the Examiner on p. 5 of the Office Action): "The system may also determine positional information of a client node **and may record the information in the database**" (emphasis added), as opposed to "listing physical locations authorized to obtain access to a service for which security is to be provided".

Then further in the paragraph "the client node may be provided with location specific services, such as location specific web page content". Again, this is far from "comparing the obtained physical location information to information listing physical locations authorized to obtain access to a service for which security is to be provided".

Finally, in paragraph [0019], also cited by the Examiner on p. 5 of the Office Action:

> "It would also be possible to assign other attributes to the link layer address that might previously have been associated with an IP address. This could include network resources, e.g. a printer and dynamic firewall rules (e.g. non-static IP)."

First, this references "link layer address" as opposed to "geographic location". Second, the purpose is to allow the connection to be moved around, or provide it with network resources, such as a printer, as opposed to "comparing the obtained physical location information to information listing physical locations authorized to obtain access to a service for which security is to be provided".

For at least these reasons, **claim 2 is patentable over the cited references.**

For at least the reason that they depend from allowable claim 2, **claims 3, 4, 5, and 18 are patentable over the cited references.**

Claim 7 is patentable because, among other things, it recites the features indicated below (emphasis added):

> *obtaining physical location information indicating the location of a user device which is the source of said IP packet prior to delivery of the packet to the destination address, including* **transmitting a location information request message including the source address of the received IP packet and receiving in response to said transmitted location information request message, information corresponding to the location of the user device;...**
>
> *determining the location of the user device from* **edge router and port information obtained from an edge router,** *wherein the determining the location of the user device further includes performing a database lookup operation to retrieve a geographic location stored in association with said edge router and port information*

Claim 7 is patentable over the cited references for at least the reasons discussed above regarding the use of "port information obtained from an edge router".

The Examiner states on p. 3 of the Office Action that "Tuck discloses using router and port information ([0073])". However, this paragraph states:

> "For any matching reverse session traffic that maps the client IP address (and additionally transport port number for NAPT) back, the router for the traffic forwarding uses the previously stored link information to generate the packet and transmit the packet to the client, and bypasses the normal route processing."

Clearly, this reference to "IP address" and "transport port number" in no way teach or suggest **"determining the location of the user device from edge router and port information** obtained from an edge router".

For at least these reasons, **claim 7 is patentable over the cited references.**

Claim 7 also recites (emphasis added):

> **transmitting a location information request message** *including the source address of the received IP packet and receiving in response to said transmitted location information request message, information corresponding to the location of the user device*

The Examiner states on p. 5 of the Office Action that:

> "With regard to applicants argument that no location request message is transmitted, the examiner points to the database lookup of Tuck, as outlined above, and further seen in [0014]."

First, a "database lookup" is not the same as "transmitting a location information request message **including the source address of the received IP packet**" (emphasis added). There is no indication in the reference as to how a database lookup is accomplished, nor any indication that a transmitted "request message" includes "the source address of the received IP packet".

Further, [0014] of the Tuck et al. publication states (emphasis added):

> "...the router is able to identify the client node from its MAC address and can implement one or more suitable network and application policies that a network administrator may define for the client nodes".

Again, this is clearly using the "MAC address", as opposed to "a database lookup operation to retrieve **a geographic location stored in association with said edge router and port information**" (emphasis added).

For at least these additional reasons, claim 7 is patentable over the cited references.

Claim 16 is patentable because, among other things, it recites the features indicated below (emphasis added):

> *means for obtaining physical location information indicating the location of a user device which is the source of said IP packet prior to delivery of the packet to the destination address, wherein determining the location of the user device further includes performing a **database lookup operation to retrieve a geographic location stored in association with edge router and port information;***
>
> *a database of physical location information listing **physical locations authorized to obtain access to said service;** and*
>
> *wherein said means for determining an action to be taken includes a comparator for **comparing the obtained physical location information to information listing physical locations authorized to obtain access to a service for which security is to be provided***

For the same reasons as argued above regarding claims 2 and 7, **claim 16 is patentable over the cited references.**

For at least the reason that it is dependent on allowable claim 16, **claim 17 is patentable over the cited references.**

Claim 32 is patentable because, among other things, it recites the features indicated below (emphasis added):

> *determining from said source address the **physical location** from which said IP packet was sent prior to delivery of the packet to the destination address;*
>
> ***comparing the determined physical location information to expected information** indicating the expected source of an IP packet; and **determining a reporting error when said determined physical location information does not match the expected physical location information***

The Examiner on p. 3 of the Office Action refers to the Tuck et al. publication at [0017] and [0119] in relation to claim 32. However, neither paragraph refers to "the expected physical location" in any manner. Also, neither paragraph refers to "determining a reporting error" for any purpose, but certainly not in response to "when said determined physical location information does not match the expected physical location information".

For at least these additional reasons, **claim 32 is patentable over the cited references.**

For at least the reason that they are dependent on allowable claim 32, **claims 33, 34, 35, and 37 are patentable over the cited references.**

It should be noted that neither the Anderson et al. patent nor the Igval publication supply any of the missing features discussed above in relation to the Tuck et al. publication regarding claims 2-5, 7, 16-18, 32-35, and 37.

Further, the Anderson et al. patent doesn't teach or suggest the determination of "physical location" recited in the referenced claims.

The Anderson et al. patent discloses an "estimated geographic location" based upon "a degree of confidence-factor weighted agreement within a plurality of geographic locations" (Abstract). This is accomplished by identifying the location of **a router** which is associated with the "machine" in question, not the location of the device itself. At col. 8, lines 14-20:

"Typically, most network addresses (e.g., IP addresses) are associated with a particular geographic location. This is because routers that receive packets for a particular set of machines are fixed in location and have a fixed set of network addresses for which

they receive packets. The machines that routers receive packets for **tend to be geographically proximal to the routers** [emphasis added]".

Other methods employed by the <u>Anderson et al.</u> patent to estimate the approximate location of a device include:

1. Tracking ownership of blocks of IP addresses (col. 15, lines 33-35);

2. Tracking ownership of domain names (col. 15, lines 42-43);

3. Tracking autonomous systems of routers (col. 15, lines 46-50);

4. DNS Location record for a host (col. 15, lines 52-54);

5. Tracing the route of the data packet (col. 15, lines 55-60);

6. The "hostname" in a network address (col. 15, line 66-col. 16, line 1); and

7. "Demographic/Geographic Data" (col. 16, lines 5-7).

None of these methods teach "obtaining **physical location** information indicating the **location of a user device**". At best, they are **guesses** at what **general vicinity** a device is **likely** to be found by identifying possible locations of **other devices** which **might be** nearby the target device.

Also, the <u>Igval</u> publication likewise does not teach or suggest the features argued above. The <u>Igval</u> publication teaches a method of estimating the approximate probable geographic location of a device, not "determining" the "physical location from which said IP packet was sent".

For example, paragraph [0027] states: "the locator application 128 may employ techniques such as sending 'homing' signals back and forth between the postage meter 140b and the data center 120 along different routes 165 through the Internet 160 and using the corresponding transmission **times** or other communications parameters associated with the homing signals to triangulate the physical location of the postage meter 140b" (emphasis added). Clearly, using **transmission times** for triangulation, where transmission times are subject to and/or are a function of routing and/or network delays, would not result in anything more than an **estimate** of possible locations, not "determining" the "physical location from which said IP packet was sent".

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III.   Claims 9-13 and 36 are Patentable

Claims 9-13 and 36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Tuck et al. publication in view of the Anderson et al. patent in further view of the Igval publication.

Claim 9 is patentable because, among other things, it recites the features indicated below:

> (i) transmitting a location information request message including the source address of the received IP packet,
> (ii) receiving in response to said transmitted location information request message, information corresponding to the location of the user device determined from edge router and port information obtained from an edge router and a device identifier associated with the source address of said IP packet;

Claim 9 is patentable for at least the reasons argued above in relation to claims 2, 7, 16, and 32.

Further, claim 9 recites:

> comparing the received device identifier to a list of device identifiers corresponding to stolen devices

which is not taught or suggested in **any** of the cited references. The Examiner on p. 4 of the Office Action points to the Igval publication at paragraphs [0027 and 0028] as showing this feature. However, this reference doesn't "compare" anything to "a list of device identifiers corresponding to stolen devices". The Igval publication states at paragraph [0028], lines 20-23:

> "If at 454 the answer is no, then at 456 the data center 120 flags the postage meter 140b as lost or stolen and terminates the session."

This is the **opposite** of the claim 9 recitation. Rather than compare "the received device identifier to a list of device identifiers corresponding to stolen devices", the Igval publication uses other methods to determine that a device is stolen, and then flags it as such.

The Examiner states on p. 5 of the Office Action that "Igval teaches flagging an ID as lost or stolen, and then will compare later IDs with the flagged ones". The problem is, the Igval publication does not teach or suggest this. The Igval publication does not even imply "comparing the received device identifier to a list of device identifiers corresponding to stolen devices". The Examiner appears to be guessing that the Igval publication might, as a subsequent step, "and then will compare later IDs with the flagged ones". However, this is just a guess, and is not based on the reference itself.

For at least this additional reason, claim 9 is patentable over the cited references.

Claims 10-13, for at least the reason that they are dependent on allowable claim 9, are patentable over the cited references.

Further, claim 11 recites the following features:

> *generating a message indicating the detection of a stolen device when said comparing step detects a match between the received device identifier and a device identifier in said list of device identifiers corresponding to stolen devices*

As the cited references do not teach or suggest the above feature, for this additional reason claim 11 is patentable over the cited references.

Still further, claim 12 recites the following features:

> *wherein said generated message includes information indicating the geographic location where the identified stolen device is being used*

As the cited references do not teach or suggest the above feature, for this additional reason claim 12 is patentable over the cited references.

Claim 36 is patentable over the cited references for at least the reasons argued above related to claim 9.

Additionally, claim 36 contains the feature:

> *receiving an IP packet including a source address wherein said IP packet is transmitted from a bracelet worn by a parolee and wherein said IP packet includes parolee identification information*

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The Examiner does not allege that this feature is taught or suggested by any of the cited references. It would further not be obvious to link the features of "determining from said source address the physical location from which said IP packet was sent" with "a bracelet worn by a parolee". For at least this additional reason, claim 36 is patentable over the cited references.

Claim 37 is patentable over the cited references for at least the reason that it is dependent on allowable claims 32 and 33.

Additionally, claim 37 contains the feature:

> *determining if said IP packet was sent at a predetermined time during which a location reporting message was scheduled to be transmitted*

None of the cited references teach or suggest this feature, nor does the Examiner claim that they do. Further, nothing in the references suggest relating their capabilities to "a predetermined time during which a location reporting message was scheduled to be transmitted", and therefore, it would not be obvious to alter the references to include such a feature. For at least this additional reason, claim 37 is patentable over the cited references.

IV. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the pending claims are in condition for allowance.[1] Accordingly, it is requested that the Examiner pass this application to issue.

To the extent necessary, a petition for extension of time under 37 C.F.R. 1.136 is hereby made and any required fee in regard to the extension or this amendment is authorized to be charged to the deposit account of Straub & Pokotylo, deposit account number 50-1049.

Respectfully submitted,

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[1] As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, ability to combine references, assertions as to patentability of dependent claims) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such in the future.